

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 10003811WO01	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2004/012782	International filing date (<i>day/month/year</i>) 27 August 2004 (27.08.2004)	Priority date (<i>day/month/year</i>) 28 August 2003 (28.08.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant CANON KABUSHIKI KAISHA		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 28 February 2006 (28.02.2006)
Facsimile No. +41 22 740 14 35	Authorized officer <div style="text-align: center; font-weight: bold;">Masashi Honda</div> Telephone No. +41 22 338 70 10

PATENT COOPERATION TREATY

REC'D 16 DEC 2004
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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
OKABE MASAO

**No.602, Fuji Bldg., 2-3,
Marunouchi 3-chome,
Chiyoda-ku, Tokyo
100-0005 JAPAN**

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	14.12.2004
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Applicant's or agent's file reference 10003811WO01	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/JP2004/012782	International filing date (day/month/year) 27.08.2004	Priority date (day/month/year) 28.08.2003
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International Patent Classification (IPC) or both national classification and IPC Int.Cl. ⁷ C12N 15/11, C12Q 1/68, G01N 33/531, G01N 37/00

Applicant CANON KABUSHIKI KAISHA
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1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP <div style="text-align: center;">Japan Patent Office</div> 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan	Authorized officer <div style="text-align: center;">HAJIME KAMIJO</div> Telephone No. +81-3-3581-1101 Ext. 3448
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/012782

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/ 012782

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	2, 3, 5, 7-9, 11, 13, 15-21	YES
	Claims	1, 4, 6, 10, 12, 14	NO
Inventive step (IS)	Claims	3, 5, 7, 8, 11, 15-21	YES
	Claims	1, 2, 4, 6, 9, 10, 12-14	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims		NO

2. Citations and explanations

D1: JP 2001-522998 A1 (FUNCTIONAL GENETICS INC.) 2001.11.20

D2: JP 2001-511361 A1 (RAPIGENE INC.) 2001.08.14

The subject matter of claims 1,4,6,10,12, and 14 does not meet the requirement of novelty.

The prior document D1 discloses a disk on which probes capable of specifically binding to a target substance are immobilized in known locations on the disk, characterized in that the probe carrier has many separated areas, wherein in each area probes of the same kinds are immobilized as 4-5 spots and probes of different kinds are not immobilized and in one area probes of the same kinds are immobilized as 4-5 spots (Claims 5,13-22, Figs 5-6).

The disk is regarded to fall within the definition the probe carrier in the present Claim 1,4,6,10,12, and 14.

The subject matter of claims 1,2,4,6,9,10,12,13,and 14 does not appear to involve an inventive step in view of the document D2 cited in the ISR for the following reason:

The prior document D2 cited in the international search report discloses an oligonucleotide probe carrier on which probes capable of specifically binding to a target substance are immobilized in known locations on the carrier, characterized in that the probe carrier has eight separated areas, wherein in each area mixed probes of the same kinds are immobilized as 72 spots and in one area mixed probes of the same kinds are immobilized as 72 spots (Pages 43-44, Figs 2-4).

A probe carrier on which probes of different kinds are not immobilized in one area is not disclosed in D2. However, said feature is commonly used art in the technical field of a probe carrier. Therefore the person skilled in the art would easily conceive the idea of employing pure probes.

The subject matter of claims 3,5,7,8,11,and 15-21 meets the requirements of novelty and an inventive step.

The prior documents D1 and D2 do not disclose varying the amount of probes in the plurality of areas respectively depending on a target substance to be detected. In addition to that, such an feature could not be deduced from the above-mentioned probe carriers in the documents.